An Overview of Maryland's Wetlands

Hydrologic factors that largely control the occurrence and type of wetlands are:

1) balance between the inflows and outflows of surface water and/or groundwater

2) local and regional topography

3) subsurface soil, geology and groundwater conditions (flow patterns, chemistry)

PROVINCE	APPALACHIAN
Regional Geology	High uplifted plateau (3,360 ft.) with ridge/valley topography Composed of sandstone, siltstone, shale and limestone*
Wetland Hydrology	Primarily groundwater and surface water runoff
Dominant Wetlands	Nontidal shrub swamps, marshes, wet meadows *Cranesville Swamp* Lacustrine *Deep Creek Lake*

* Limestone formations correspond with presence of many wetlands

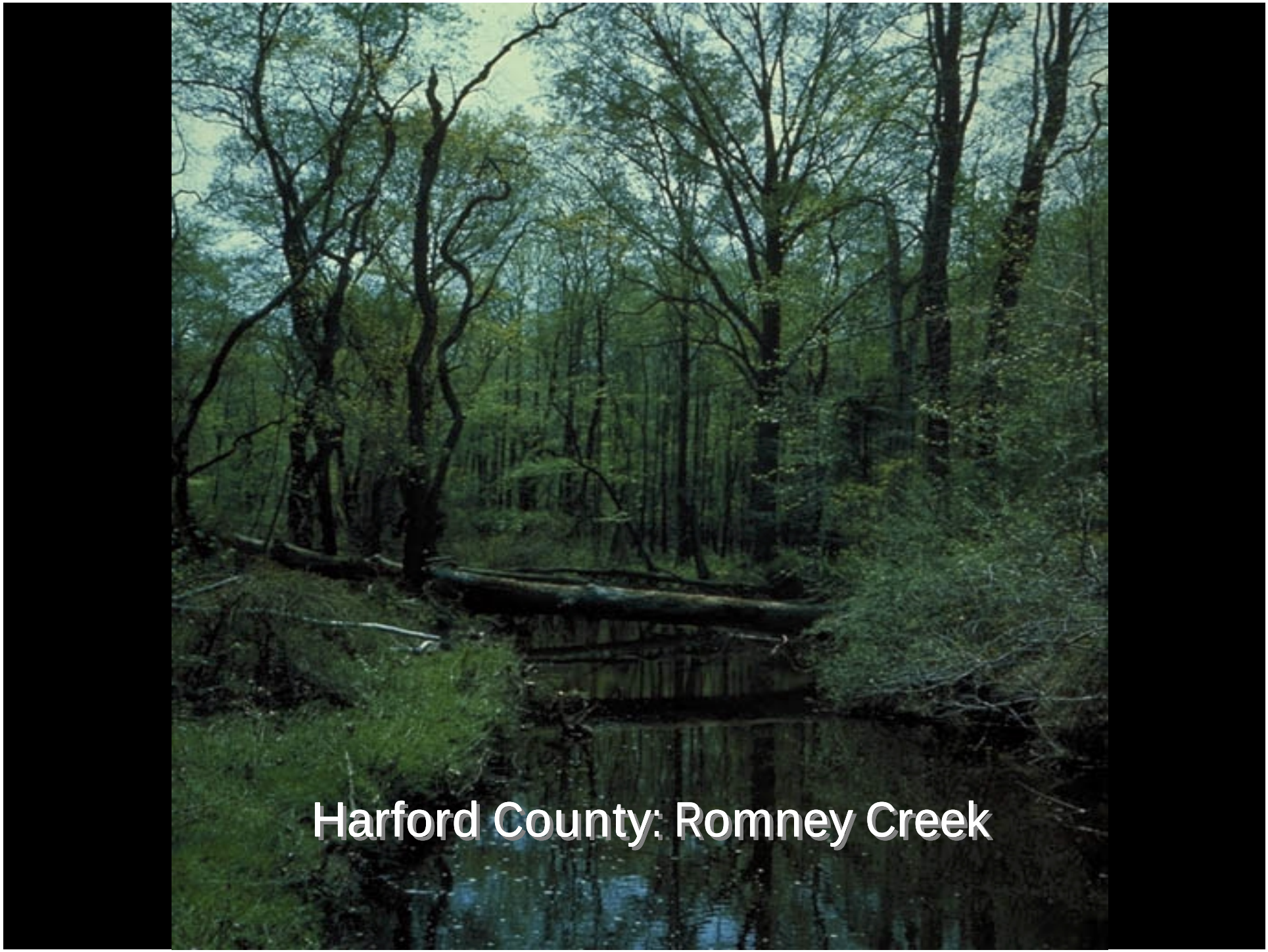

Garret County: Glades


Garret County: Cranesville

PROVINCE	RIDGE & VALLEY
Regional Geology	Great Valley - composed of erodeable limestone and shale Allegheny Ridge - composed of erosion-resistant sandstone
Wetland Hydrology	Groundwater and surface water runoff
Dominant Wetlands	Riverine (floodplains) * North Branch Bottomland *

PROVINCE	BLUE RIDGE and PIEDMONT
Regional Geology	Moderate valley and ridge topography - composed of metamorphic and igneous rocks Moderate topography from 300-500 feet - composed of mostly metamorphic rocks (some igneous)
Wetland Hydrology	Groundwater and surface water
Dominant Wetlands	Riverine (floodplains) Nontidal marshes, wet meadows Nontidal evergreen & deciduous forested wetlands * Little Gunpowder Falls *


Cecil County


Harford County: Romney Creek

PROVINCE	WESTERN COASTAL PLAIN
Regional Geology	Moderate to low topography from sea level to 200 feet Composed of unconsolidated alluvial and marine sediments (few coarse gravel deposits)
Wetland Hydrology	Surface water and tidal influence
Dominant Wetlands	Riverine (floodplains, interfluves) Marine (tidal marshes, forested) Estuarine (tidal flats, beaches, shrub swamps, forested) * Zekiah Swamp *


Anne Arundel County: Eagle Hill Bog


Calvert County: Battle Creek Cypress Swamp

PROVINCE	EASTERN COASTAL PLAIN
Regional Geology	Relatively flat, low plain, from sea level to 100 feet Composed of unconsolidated alluvial and marine sediments
Wetland Hydrology	Surface water and tidal influence
Dominant Wetlands	Riverine (forested floodplains Marine (tidal marshes, forested) Estuarine (tidal flats, beaches, shrub swamps, forested) * Brookview Ponds *


Caroline County: Tuckahoe Creek


Queen Anne’s County: Upper Chester River

How many wetlands are there in Maryland?

- National Wetland Inventory (NWI)
- Coastal Wetlands of Maryland
- State Wetland Guidance Maps
- DOQQ Maps
- NRCS Soil Surveys

Physiographic Regions	Total Acreage
Appalachian Province Garrett	7,082
Valley and Ridge Province Allegany, Washington	2,727
Blue Ridge and Piedmont Provinces Frederick, Carroll, Cecil, Harford, Montgomery, Howard, Baltimore, Baltimore City	45,214
Western Coastal Plain Anne Arundel, Prince Georges, Charles, Calvert, St. Mary's	92,607
Eastern Coastal Plain Cecil, Kent, Queen Annes, Talbot, Caroline, Dorchester, Wicomico, Worcester, Somerset	450,792
State Total	598,422

(from Tiner and Burke, 1995)

Issues for Consideration

- Tidal Wetlands
- Nontidal Wetlands
- Waterways
- Floodplains

Outcomes

- Drop from Consideration
- Investigate Further
- Include in Plan
- No Action

Decision Making

- Consensus
- Majority
- Note Dissenting Views

Regulatory Issues

- Regulation Changes
- Permit Processing Changes
- MDSPGP Changes
- Mitigation
- Application Information
- Conflicting Requirements

Non-regulatory Issues

- Preservation
- Education
- Scientific questions

Regional Approach

- Address Local Concerns
- Local Expertise
- Existing Efforts
- Differences in Wetland Distribution